DOCUMENT RESUME

ED 130 674 IR 004 228

AUTHOR	Bourne, Charles P.
TITLE	Institute of Library Research, University of California, Berkeley. Annual Report, July 1975 to June 1976.
INSTITUTION	California Univ., Berkeley. Inst. of Library Research.
REPORT NO	ILR-7601
PUB DATE	76
NOTE	27p.
EDRS PRICE	MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS	Annual Reports; Catalogs; Computer Oriented Programs; Data Bases; Information Services; *Library Education; *Library Research; On Line Systems
IDENTIFIERS	*Institute of Library Research; University of California

ABSTRACT

Research programs of the University of California (UC) Institute of Library Research (ILR) for the period July 1975 to June 1976 included: (1) error analysis of the UC Union Catalog Supplement (UCUCS), (2) error analysis of on-line bibliographic data bases, (3) planning data for UCUCS-2 conversion planning, and (4) document delivery support for the UC selective dissemination of information system. Aid to instructional programs included participation of ILR staff in classroom instruction, provision of computer service and support to faculty and students, and development and testing of instructional materials. Computer services and information services of various kinds were also provided to the UC community and to other groups. (PF)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED130674

Institute of Library Research

University of California

Annual Report

July 1975 to June 1976

by

Charles P. Bourne, Director

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Institute of Library Research
University of California
South Hall Annex
Berkeley, California 94720

IR004228

CONTENTS

	ABSTRACT	1
I.	INTRODUCTION	1
II.	DESCRIPTION OF PROGRAMS	2
	A. Research Programs	2
	1. Error Analysis of the UC Union Catalog Supplement (UCUCS)	2
	2. Error Analysis of On-Line Bibliographic Data Bases	4
	3. Planning Data for UCUCS-2 Conversion Planning	4
	4. Document Delivery Support for SDI Systems	6
	B. Aid To Instruction Programs	7
	1. Support To Classes	7
	2. Development and Testing of Instructional Materials	9
	3. Support To Faculty	10
	4. Support To Individual Students	10
	C. Teaching And Extension Programs	11
	D. ILR-Sponsored Seminars And Other Programs	11
	E. Other Service To The University Community	11
	F. Public Service	12
III.	PARTICIPANTS	14
	A. Faculty	14
	B. Other Professional Academic Staff	14
	C. Graduate Students	14
	D. Undergraduate Students	15
	E. Administrative/Clerical/Technical Staffs	15
IV.	SOURCES OF SUPPORT FUNDS	16
	1. Source	16
V.	EXPENDITURES	16
	2. Expenditures By Source Of Support	16

TABLE OF CONTENTS (CON.)

VI.	SPACE CURRENTLY OCCUPIED	17
VII.	THESES FILED IN PAST YEAR	17
VIII.	ADVANCED DEGREES AWARDED TO ILR-SPONSORED STUDENTS	18
IX.	PUBLICATIONS	18
X.	FIVE-YEAR PLAN	19
	ILR/CIS TRAINING PROGRAM ACTIVITIES	20

ABSTRACT

The Institute of Library Research (ILR) is a Statewide organized research unit of the University of California whose activities have been directed toward the objectives of education, research, and public service. During this reporting period the Institute continued to meet some significant changes in its objectives and programs. This report summarizes the projects and activity of ILR for the period of July 1975 through June 1976.

I. INTRODUCTION

Much of the energy of the Institute of Library Research (ILR) during this year was directed at finding ways to respond satisfactorily to the reorientation of ILR objectives that were described in the last annual report. Vigorous efforts to obtain new extramural funding this year were unsuccessful, however several major proposals are still under review by several external agencies. One encouraging development during this year was the increased faculty involvement in the preparation of proposals for extramural support.

A major part of the ILR efforts during this year were devoted to the establishment of training materials, laboratory facilities, and training programs related to computer-based library services. Extensive support to training efforts was given to a wide audience including students, faculty, and staff from all UC campuses, as well as sone non-UC audiences. This work was done in close cooperation and collaboration with the UC Berkeley School of Library and Information Studies, and the Center for Information Services (CIS) of the Systemwide Library Automation Program. ILR performed a significant public service by sponsoring many separate training sessions that were open to non-UC persons.

One of the revised ILR objectives is to work more actively in international information activities. In that regard, the Director participated on behalf of the National Science Foundation, in an activity in Cairo in April 1976 as a member of a U.S.-Egyptian Task Force to study the technical information problems of Egyptian researchers. He was also scheduled to lead a similar effort in Ghana in July 1976 on behalf of the U.S. National Academy of Sciences and the Ghana Council on Scientific and Industrial Research. Several major proposals for research and development work in related areas of developing countries are presently being discussed with various funding agencies, and are viewed by us as the beginning of a re-orientation of some of the ILR activities.

II. DESCRIPTION OF PROGRAMS

A. RESEARCH PROGRAMS

1. Error Analysis of the UC Union Catalog Supplement (UCUCS)

The University of California Union Catalog Supplement was intended to serve not only as a finding tool but also as a complete bibliographic record of the items cataloged during the five-year period 1963-1967. It is divided into a 31-volume Author/Title catalog and 16-volume Subject catalog. Over 1.1 million catalog records were collected and processed by computer for this catalog, constituting approximately 750,000 unique titles.

Several methods of quality control planned for this catalog were either only partially successful or else not implemented because of various factors. It was not intended by the Project Manager that the data base be exhaustively manually proofread or edited; to do so would have been impossible given the then-prescribed time and monetary constraints of the UCUCS project. Moreover, a major purpose of the project, according to the Project Director, was to experiment with the idea of producing a book catalog with a minimum of manual intervention and with an error level that was supposedly agreed to in advance as one of the product specifications. As much as possible of the catalog production was to be performed by computer processes with only limited human inspection, including quality control. This study determined the source and nature of the errors that were noted in the resulting printed catalog.

Most of the operations performed to produce UCUCS were done by computer rather than manually. Most of the source records went all the way from keyboarding to page printing and binding without manual editorial intervention at any point in the production cycle. This was a management decision that resulted in a high error rate (mostly because it was not possible within time and budgetary constraints to implement several of the planned programs and procedures) but a lower unit cost than had been experienced by any other equivalent book catalog conversion effort before or since UCUCS.

There is a need for a general methodology for measuring errors in bibliographic catalogs--machine produced or otherwise--and in machine-readable bibliographic files. As far as we have been able to determine, no such generalized methodology has yet been designed. The present study analyzes both rates and types of errors in a particular catalog; in the process of doing this, a taxonomy of error types has been developed which should be applicable and useful in the error analysis of any bibliographic catalog or similar textual file.

A stratified random sample of 94 pages from UCUCS was used in this study--61 pages from the Author/Title section of the catalog and 33 from the Subject section. Each of these pages was copied and read by one of the project researchers who marked the copied page with red pencil and recorded each error found on an error coding sheet. Each page was re-examined by another

project researcher in order to catch any errors missed by the first person, and also to insure continuous standardization of interpretation of the error codes.

The analysts used an inclusive definition of error. An error was considered to be not only problems which caused loss of entry point or misfiling of entries, but also anything which might cause confusion or irritation on the part of the catalog user. Therefore, relatively minor mistakes such as improper spacing or print size were included as errors in this study. The "catalog user" was considered to include not only professional librarians but also students and the general public.

Although all sorts of errors were included in the study, they were coded in such a way that they could be grouped later into three general categories of "fatal," "serious," and "minor;" thus relatively insignificant errors could be evaluated separately from more serious ones. Fatal errors were defined to include those which would make it very likely that an entry point (i.e., a bibliographic record) would be lost to the user. Serious errors included non-fatal errors which would make it fairly likely that an entry point might be missed by the user and errors which render the content of the record unclear or misleading. Minor errors included those which merely affect the appearance of the entry without being likely to cause confusion for the user.

Each error found was coded according to six different aspects: Type, Location, Effect, Cause, Language, and Non-Monographic Type. Using each of these aspects in recording the errors made it possible to get a rather realistic and specific idea of the nature of the errors in UCUCS, and this, in turn, will make it possible for programmers and systems analysts to estimate what sorts of improvements might best be made in the data base and the programs which produced the catalog.

After all of the errors had been coded, the collected data was keypunched and processed with statistical analysis programs in the campus Computer Center.

A total of 4,338 errors were found on the 94 sample pages of 5,900 entries (3,589 entries in the Author/Title section and 2,311 in the Subject section). This represents an average of 46.1 errors per page, or 0.74 errors per entry. There were 3,167 errors in the Author/Title section and 1,171 errors in the Subject section. We can estimate that there are an average of 0.88 errors per entry in the Author/Title section and 0.51 errors per entry in the Subject section. Errors tend to "clump" in some entries rather than being evenly spread throughout the entries; thus, many entries showed no errors. We can also estimate that there are approximately 51.9 errors per page in the Author/Title catalog and 35.6 errors per page in the Subject section.

Serious and fatal errors together represent only about <u>half</u> of all the errors. The serious errors totaled 1,886 representing 43.5% of all found, and the fatal errors totaled 300, representing 6.9%. There were 2,152 minor errors in the sample, or about 40% of all the errors found.

The final report has been published as ILR report number 7602, Analysis of Errors in the University of California Union Catalog Supplement.

2. Error Analysis of On-Line Bibliographic Data Bases

Computer-based reference services such as the Lockheed DIALOG and SDC ORBIT systems, now being used with increasing frequency by the libraries of UC and other organizations, operate with bibliographic citation tapes furnished by data base vendors such as Engineering Index, Inc. and Chemical Abstracts Service. In our use of these files, we have noticed a number of vocabulary problems such as a relatively large number of misspelled words, and many variant forms for the same word. These vocabulary problems are compounded when the users work with research systems which have multiple data bases, and which build indexes to the words in article titles (including foreign language titles) or abstracts.

We have continued to study the nature and extent of some of these index vocabulary problems, particularly for the major data bases associated with the on-line search services. One report of the results of this work was presented at an annual meeting of the Association of Scientific Information Dissemination Centers, and is scheduled for journal publication in the near future.

3. Planning Data for UCUCS-2 Conversion Planning

The Institute of Library Research has already converted to machine readable form over one million catalog records representing about 750,000 unique Roman-language monographic titles cataloged by UC libraries during the period 1963-67. From this computer data base, the 47-volume UC Union Catalog Supplement (here referred to as UCUCS-1) was produced, and is now in use in each of the nine UC campuses, and in the California State Library, and on each of the 19 California State University and Colleges System campuses.

Some 1.7 million additional Roman-language card records, representing monographs cataloged by the UC libraries during the period 1968-72 were also collected and pre-processed by ILR, and the cards are now warehoused in the Richmond storage facility awaiting further planning and processing. These records are referred to as UCUCS-2 records. There seems to be agreement within the UC Library System that these records should eventually be converted into machine readable form. All of the UC Santa Cruz records are already on computer tape and will be available when appropriate for further UCUCS-2 processing.

The question this study explored was how to get the unconverted UCUCS-2 records into machineable form as economically and easily as possible.

Some of the card records are already available in machine form from external source files such as the LC MARC, OCLC, UCUCS-1 and UC Santa Cruz machine files, and could very likely be copied therefrom with less time and cost than required for original conversion. Some records are not available in machine form and would have to be converted.

With this background, a study was done at ILR to:

a. Determine the magnitude of the UCUCS-2 conversion problem,

b. Determine the extent to which those records were already available in some existing data bases,

c. Determine the nature of the library materials represented by the UCUCS-2 catalog records (i.e., the nature of the material acquired and cataloged by the UC campuses during the period 1967 through 1972.)

d. Determine the extent to which some unique record identification number such as the LC Card Number was available for each of the UCUCS-2 records.

The UCUCS-2 records supposedly represent all of the monographs cataloged (and perhaps acquired) by the UC General Libraries during the period of 1968 through 1972. As such, our sample of UCUCS-2 material represents much of the type of material that was going into the UC collections during this recent five-year period. For that reason it is of interest to determine the general characteristics of this material.

An analysis of the language of publication of our sample monograph records show that approximately 34% of this material was in a foreign language. Berkeley had the highest percentage (44%) of foreign language monographs. Almost half of the material was published during the five-year period in which the UCUCS-2 material was collected, and about two-thirds of the UCUCS-2 material was published during the total UCUCS time period of 1963-72. About one quarter of the UCUCS-2 records were for material more than 20 years old.

Suggestions have been made of the possibility of preparing a computer-based numeric register or book catalog for the UC library resources in a manner similar to that done recently for the Louisiana libraries and described in the previous discussion of our bibliographic access study. Our data indicates that about 81% of the UCUCS-2 material has some sort of unique number associated with it, but a large fraction of the numbers are not on the local cards and would have to be found by a relatively time-consuming lookup process. About 63% of the total UCUCS-2 records have some type of unique material identification number on the local catalog record. Using the best available information regarding the total number of Roman alphabet UCUCS-2 records, our data suggest that if a numeric register were to be considered, it could represent about 1.06 million of these cards if the information was taken directly from the available cards, and a total of about 1.38 million of these records if additional lookups were made to search for missing numbers.

Because it is generally so much more expensive to create a new machine record than to copy it from some of the existing data bases of catalog records, one major file conversion policy would be to make as much use as possible of available machine data bases. Project and budget planning for UCUCS-2 record conversion will need a good estimate of the number of records that might have to go through an original conversion process. Sample UCUCS-2 records for each campus (a total of 3,337 records) were examined to find the

extent to which they overlapped with three machine data bases already available at UC: LC MARC, UCSC, and UCUCS-1. The data shows that about 27% of the UCUCS-2 material can presently be taken from the LC MARC data base. Over 15% of the source cards will be immediately identified as LC MARC records by inspection of the card, and another 11% of the source cards could only be identified as LC MARC records by a bibliographic author-title search.

A total of over 48% of the UCUCS-2 material can be taken from at least one of these three UC files. Some of the remainder can be taken from other externally available files such as OCLC or DSC/Information Dynamics LIBCON. With a minor adjustment to account for some out-of-scope cards to be removed from the UCUCS-2 records, we now see a total of at least 807,000 UCUCS-2 card records that can be copied from existing UC machine files.

The Ohio College Library Center (OCLC) presently has approximately 2.4 million catalog records available for on-line computer searching and copying. Over 500,000 of these records duplicate the LC MARC file that UC already maintains. All of the UCUCS-2 records that were not found in any of the three UC files were searched against OCLC. A total of 30% of the residue records (i.e., those records not found in any of the three UC data bases) were found in the OCLC data base. Extrapolating this to the total UCUCS-2 card file, we find that after first searching against the three available UC files, an additional 217,000 records can be found in the OCLC file. A total of about 520,000 UCUCS-2 records would still have to be copied from other files, or keyboarded, even if the three UC files and OCLC were used.

The results of this study effort are discussed in more detail in the ILR report, 75-06, Planning Data for the Conversion of UCUCS-2 Catalog Card Records into Machine Readable Form.

4. Document Delivery Support for SDI Systems

The UC Center for Information Services (CIS), a University-wide activity that is located on the UCLA campus, currently operates a major SDI service primarily for the benefit of UC faculty, staff, and students on all 9 campuses. The system is running with the ERIC, CA Condensates, BIOSIS Previews, and CAIN data bases.

One continuing topic of interest for ILR has been the issue of how to more closely couple CIS's SDI system with the University libraries and their document delivery systems.

The general objective of the system modification developed by ILR was to more effectively couple the University's central SDI system with its significant but widely distributed library resources. This modification was described in the last ILR annual report, and was implemented by CIS during the past year.

Our general approach was to try to annotate the CIS output citations with library location and call number information that was tailored to each user's location, regardless of which campus the user was at. Our intent was to show an SDI recipient where each cited publication was held on that

user's campus. If the publication was held in several libraries on that campus, then the library name and the call number associated with each library would be printed out with the citation. The idea here was to leave to the user the choice of which campus library to patronize, since there might be a personal preference because of library location, facilities, or other factors.

Each UC patron is associated with a campus code in the CIS/SDI system. Reference is made to this code at the time output hit citations are assembled and printed by the system. For a given campus code, tables are stored in the computer system which give the names of the major publications covered by each bibliographic data base, the name of the holding libraries, and the call number for a given publication in each of the holding libraries on each campus. This location and call number information, when available, is then printed to accompany the relevant citation. The files presently do not include all of the titles covered by each data base, consequently some output citations will not be annotated with location information.

At the completion of our initial file building effort, a total of 3,280 titles had been put into the machine files along with library location and call number information for each campus, amounting to about 30,000 separate title-location entry statements. Holdings of over 60 separate library branches are presently represented in our machine file.

The location information coupling system has been in regular production use since early 1975 and has been received with thanks by many library staff members and SDI recipients. Preliminary indications are that a significant amount of time is being saved for users by eliminating the need for them to make a visit to various library catalogs to determine the location and call number of cited titles of interest.

The ILR work during the present year has been to update and enlarge this file of location information so that a larger number of output citations can be annotated by the system. This file update work is still in progress.

A more detailed report of this coupling system has been published as the article, "Improvement in the Coupling of SDI System Output with Document Delivery Systems," in the February 1976 issue of J. Chemical Information and Computer Sciences.

B. AID TO INSTRUCTION PROGRAMS

1. Support to Classes

a. Classroom Instruction

Four staff members of ILR participated in classroom instruction activities of the School of Library and Information Studies. The Director taught several courses. Jo Robinson and Barbara Anderson jointly taught a Summer Session course on Computer-Based Reference Services, and Gary Lawrence jointly taught a course on library information and service policy. Several

staff members also gave guest lectures to other classes, including one class for the UCSF Medical Information Program.

b. Provision of Special Computer-Related Support

ILR provided computer service and support to faculty and students in the following ways:

--Establishment and Operation of On-Line Laboratory Facilities.

ILR established, operated, and maintained an on-line laboratory facility for use by faculty and classes at the UCB School of Library and Information Studies, and for other UC training programs such as those run by CIS. The laboratory facility now contains six 30 character per second printing terminals (3 TI thermal printers, 3 DecWriter impact printers) and one Lear Siegler CRT terminal, all for use with any of several on-line bibliographic search services. Space, furniture, and telephone facilities have been provided to permit these terminals to be used in a supervised laboratory setting, with up to 6 terminals being used simultaneously by the students. These facilities were used for class demonstration and student lab work for 8 different courses, involving over 200 students, during this year:

221: Computer Based Reference Services (lab and demonstrations for 29 students)

276: Survey of Library Automation (lab and demonstrations for 45 students)

223: Bibliography of Health Sciences (lab and demonstrations for 35 students)

240: Intro. to Information Sciences (demonstrations for 60 students in 2 courses)

290: Librarian and the Society (demonstration for 20 students)

Bib 1: How to Use the UC Library (demonstration for 1 section of 15 students)

Architecture (demonstration for 10 students)

UC Library Faculty Seminar on How to Use the Library (demonstration for 20 faculty members)

The use of this facility for class activities is expected to increase in the current year. Plans are being made for additional equipment and resources to meet this need.

The external on-line information services accessed for this class activity included:

Lockheed DIALOG Search Service

SDC ORBIT Search Service

NLM MEDLINE, TOXLINE

OCLC

Stanford SPIRES/BALLOTS

San Mateo County Computerized Community Information Project.

These same lab facilities were used to provide demonstrations to several other groups, including over 80 non-students, in non-class situations as part of the CIS training program described later. This includes activities such as the CIS Data Base Seminars for UC librarians.

--SDI Each of the students in the course on the Survey of Library Automation prepared interest profiles for a computer-based current-awareness, or selective dissemination of information (SDI) system operating at UCLA on a system-wide basis. These search statements were run against such data bases as Chemical Abstracts Condensates and Current Index to Journals in Education, and the resulting computer-printed citations analyzed by these students to determine their relevance to their original search formulation. This exercise provided the students with an appreciation for the ways that computers can be used for library current awareness information services. Instruction in the use of this particular SDI system, the profile entry work, and subsequent checking was handled by ILR staff members.

2. Development and Testing of Instructional Materials

ILR has been very active in the development and testing of training materials for use in the teaching of computer-based reference services to university classes or for programs of continuing education for professionals

Particular attention has been given to instruction about the on-line file search systems that are coming into widespread use in libraries today. One major ILR accomplishment during this year has been the development of the DIALOG Lab Workbook: Training Exercises for the Lockheed DIALOG System. This Lab Workbook, prepared in cooperation with Lockheed Information Systems, provides a series of on-line and homework exercises that can help with student training in the use of this particular on-line search system. This Lab Workbook has evolved into its present form through its use and continued modification with a series of classes of students at the UC Berkeley School of Library and Information Studies, a class at the Syracuse University School of Information Studies, and a program of in-service training for librarians in the UC Berkeley Library. The latest version of this workbook is currently being printed and will be available soon for general distribution. It is expected that this workbook will be of assistance primarily to library schools, but also to library in-service training programs.

A similar workbook is presently being prepared for the SDC ORBIT Search Service and will be tested with the Fall 1976 classes in the UC Berkeley School of Library and Information Studies. Workbooks are also planned for the OCLC and BALLOTS systems.

3. Support to Faculty

a. Proposal Support

ILR provided assistance to several faculty members of the School of Library and Information Studies in their formulation and preparation of proposals for extramural support. This support included editorial assistance for proposal writing, determination of the proper format and required numbers of copies for particular funding agencies, preparation of accompanying budget estimates, typing and reproduction work, and clearance with various University offices. Assistance was also given in the determination of the appropriate funding sources for a particular proposal and the transmission of the proposal to the funding agency. ILR was also involved in initial discussions with several funding agencies to help clarify or determine more acceptable work statements, schedules, and levels of support for the proposed work.

b. Computer-Based Reference Services

ILR's present participation in the Computerized Information Services project at UCLA calls for ILR to develop and expand computer-based SDI services to the northern UC campuses. As part of that activity, ILR has worked with the faculty and doctoral students at the School of Library and Information Studies to offer computer-based SDI services or retrospective searches, tailored to each individual, to assist in their personal research work. Each School of Library and Information Studies faculty member has been contacted and invited to participate in these services. A similar invitation has been extended to most of the doctoral students in the School.

4. Support to Individual Students

a. Professionally Relevant Part-Time and Summer Employment for Students

ILR has provided part-time and summer employment as Laboratory and Research Assistants for many students, both from the School of Library and Information Studies and from other departments. During this reporting period 16 students (including 9 graduate students from the School of Library and Information Studies) have been employed at Berkeley by ILR. A complete list of these students is given later in this report. Not only did this employment provide direct financial assistance to these students, but for most of them it also provided work experience directly related to their professional interests.

b. Source of Study Problems for Students

ILR is accessible to all students (whether employed by the Institute or not) as a source of real case study problems for class projects, individual study efforts, or doctoral dissertations. ILR staff members are available and are encouraged to work with these students in order to provide the necessary problem statements, information, materials, and other supporting resources.

c. Doctoral Student Counseling

The Director of ILR served in the UCB School of Library and Information Studies as the Chairman of the doctoral committees for 5 students, and as a member of the doctoral committees for two other students.

d. Literature Search Support

As mentioned earlier, ILR has worked with CIS to help introduce computer-based current awareness and retrospective literature searching services to faculty and staff of the northern UC campuses. As part of that activity, this service has been called to the attention of all of the doctoral students in the UCB School of Library and Information Studies. Several profiles have been prepared and put into operation at UCLA for these students. Furthermore, many additional retrospective searches were run for individual students, using the ILR on-line searching services and facilities.

C. TEACHING AND EXTENSION PROGRAMS

In addition to the extensive ILR staff participation in regular UC academic programs as described in an earlier section of this report, there was considerable activity in support of other information dissemination programs. Most of this was associated with the CIS project and is summarized in the next section. The non-CIS activities include those listed in the appendix.

D. ILR-SPONSORED SEMINARS AND OTHER PROGRAMS

Computer-based reference services represent one of the continuing areas of interest for ILR. In that regard, ILR has been responsible, in conjunction with the Computerized Information Services (CIS) Group of the University-wide automation Program (ULAP), for arranging many seminars and workshops relating to specific information services and data bases. These programs were aimed at the continuing education of professional staff members of the UC library systems, as well as other library staffs throughout the state. UC faculty and students also attended these programs. The programs, described in the appendix were planned and conducted by Ms. Jo Robinson of ILR. Ms. Robinson also participated in several other workshops which were co-sponsored with other organizations or included other speakers.

E. OTHER SERVICE TO THE UNIVERSITY COMMUNITY

ILR staff members served as a backup resource for computer-based reference services to the UC campuses. ILR helped many users who were unable, for a number of reasons, to find a UC library that could prepare a query or search profile statement for computer searching services at the University-wide Center for Information Services. This backup profile

writing service was provided as a stop-gap measure for many users while the library staffs were being trained to handle this work.

The on-line terminal facilities of ILR were also used by some of the UC Berkeley libraries for on-line file searching of the Lockheed, SDC, SUNY, and MEDLINE services as part of test or backup operations.

In a general way, the director made a direct contribution to the University community by participating in the work of the University Library Council, and on several committees of the School of Library and Information Studies. The Director also served on UCSF Quality Management Program committee to evaluate the library service of that campus.

Ms. Robinson of ILR participated in the CIS User Group, which is a northern California university group that concerns itself with improving the services provided by CIS.

F. PUBLIC SERVICE

The research topics chosen by ILR have always been chosen with a view toward the relevance or transferability of the methodology or findings to other organizations. In that regard, most of our research activity represents a public service.

Our publication program is designed as a public service to provide current and widespread dissemination of our research reports. All of our technical reports are sent to the ERIC Clearinghouse for Information Resources to be noted in the ERIC abstract journals, indexed in the ERIC machine data base, and microfilmed to permit easy on-demand copy fulfillment services. All of the ILR reports annotated with an ED number in the bibliographies of this and other ILR reports, are available in hard copy or microfilm from the ERIC Document Reproduction Service.

The Director continued to assist the State of Hawaii in its planning for library automation and networking for the State Library and all of the public and school libraries in that state. He continued to participate in an Advisory Committee to an NSF project to provide computer-based information services in public libraries, and served as consultant to the U.S. Office of Education.

For public service in a larger context, the Director continued to be involved with the information services in developing countries, helping to improve library and information services to scientists and engineers in those countries. The Director participated, as a member of a National Science Foundation team, in a U.S. - Egyptian Workshop in Cairo in April, 1976, to work on information problems of Egyptian researchers. He was also scheduled to lead a similar effort in Ghana in July, 1976, on behalf of the U.S. National Academy of Sciences and the Ghana Council on Scientific and Industrial Research (CS&R). With these and other countries, ILR experimented with the provision of U.S.-based computerized current awareness services

as a mechanism to augment resource-poor research facilities in developing countries. Cooperative arrangements were made by ILR with the Serengeti Research Institute in Tanzania, BIOTROP in Indonesia, the Petroleum Research Institute in Cairo and the CS&R in Ghana.

III. PARTICIPANTS

A. FACULTY

The faculty members who participated in ILR activities on a salaried basis during this reporting period are:

NAME	TITLE	AFFILIATED DEPARTMENT	ILR FTE
Charles P. Bourne	Professor-in-Residence	School of Library & Information Studies	.50
Michael D. Cooper	Assistant Professor VI	School of Library & Information Studies	*
Donald H. Kraft	Visiting Assistant Professor	School of Library & Information Studies	*

(* Employed as Research Librarians under Regulation 4, and participated in preparation of proposals for which they were to be Principal Investigator or Project Director.)

B. OTHER PROFESSIONAL ACADEMIC STAFF

NAME	TITLE	ILR FTE
Josephine M. Robinson	Coordinator of Computerized Information Services	1.0

C. GRADUATE STUDENTS

The following graduate students are affiliated with the School of Library and Information Studies, were paid salaries on an hourly basis, and participated in research.

NAME	DEGREE OBJECTIVE
ANDERSON, BARBARA E.	Certificate in Library Automation
BUSS, MARGARET L.	MLS
FAHLUND, PAMELA S.	Certificate
HUIZINGA, P.	Ph.D.
KHOURY, PATIALA	Certificate in Library Management
LAWRENCE, GARY S.	DLS
LOY, D. E.	MLS
SHEK, K. W.	MLS
TUCKER, ANN	MLS

D. UNDERGRADUATE STUDENTS

The following students were also paid salaries on an hourly basis and participated in various clerical support functions.

NAME	DEPARTMENT AFFILIATION
FONG, STEVEN E.	BACTERIOLOGY
JACOBS, D. E.	HISTORY
JAN, CORINNE S.	PSYCHOLOGY
KLEIN, K. L.	ENGLISH
LEW, S.	HISTORY
MILNE, LYNDA M.	ENGLISH
TAKAHASHI, IRENE	BIOCHEMISTRY

E. ADMINISTRATIVE/CLERICAL/TECHNICAL STAFFS

The following comprise the career staff:

NAME	TITLE	ILR FTE
Charles P. Bourne	Director	.50
Josephine M. Robinson	Coordinator, CIS Training	1.00
Rhozalyn M Perkins	Principal Clerk	.50
Bonnie F. Shaw	Administrative Assistant II	.50

IV. SOURCES OF SUPPORT FUNDS

1. SOURCE	AMOUNT
University Opportunity Funds	1,099.41
General Funds (19900)	97,430.08
TOTAL	98,529.49

V. EXPENDITURES

2. EXPENDITURES BY SOURCE OF SUPPORT	AMOUNT
Administrative Support	59,301.01
Direct Research	39,378.28
Matching Funds	-0-
Other	-0-
TOTAL	98,679.29

VI. SPACE CURRENTLY OCCUPIED

Since 1972, the Institute of Library Research has been housed in South Hall Annex, which has 2,500 square feet of space (rounded figure). Because of the close proximity to the School of Library and Information Studies, the ILR on-campus facilities have been a convenient location for the on-line laboratory facilities. The location has also been convenient for facilitating the employment of students assisting with research.

The Annex is a one-story building divided almost equally into two large rooms. The outer "main" room, or the one with the access door to the outside, is an open area for the clerical support staff. Three of the terminals used for on-line lab work are located toward the back of the room. Previous tenants had partitions built in the inner room that provide eleven separate cubicle-like offices which are presently being used by the Director, ILR staff members, and for other on-line terminal facilities.

VII. THESES FILED IN PAST YEAR

No theses were filed this year as a result of research work done by students in ILR. This is largely because the Berkeley School of Library and Information Studies does not require a thesis to be submitted as part of the requirements for the Masters degree. Several sixth year Certificate students and doctoral students, however, did participate in publication activity as part of their work with ILR. Students participated in work on the following publications during this reporting period as a part of their involvement and affiliation with ILR:

--Martell, Charles R., Jr., Document Availability and Use Patterns at the University of California, Berkeley, Library: A Comparison with California State University, Sacramento (Sponsored by the General Library, University of California, Berkeley). July 1975. ILR-7504. ED-112 931

--Buss, Margaret, Deborah Sommer and Judy Todd (with C. Bourne), Analysis of Errors in the University of California Union Catalog Supplement. June 1976. ILR-7602

VIII. ADVANCED DEGREES AWARDED TO ILR-SPONSORED STUDENTS

The following people all worked at ILR while working on their post-graduate degrees, and have since received the degrees shown below.

M. L. S.	(6th Year Degree) CERTIFICATE
D. E. Loy	Barbara Anderson
Ann Tucker	Pamela S. Fahlund
	Patiala Khoury

Several other students worked for ILR during this time while pursuing their Certificate and doctoral degrees; however, their degree work is not expected to be finished until sometime during the next reporting period.

IX. PUBLICATIONS

The ILR technical reports produced during this and previous annual periods are listed on the back cover of this report. The ILR publications for this reporting period are also repeated below, along with other publications prepared for professional journals.

Bourne, Charles P. and Larry Legard. "An Improved Title Word Search Key for Large Catalog Files," Journal of Library Automation. Scheduled for publication in 1976.

Bourne, Charles P. "Frequency and Impact of Spelling Errors in Bibliographic Data Bases," Information Processing and Management. Scheduled for publication in 1976.

Bourne, Charles P. "Computer-Based Reference Services as an Alternative Means to Improve Resource-Poor Local Libraries in Developing Countries," International Library Review. Scheduled for publication in 1976.

Bourne, Charles P. DIALOG Lab Workbook: Training Exercises for the Lockheed DIALOG Information Retrieval Service. Berkeley: Institute of Library Research, University of California, June 1976.

Bourne, Charles P., Margaret Buss, Deborah Sommer and Judy Todd. Analysis of Errors in the University of California Union Catalog Supplement. Berkeley: Institute of Library Research, University of California, June 1976. ILR-7602. 72 pages.

Bourne, Charles P. "Improvements in the Coupling of SDI System Output with Document Delivery Systems," Journal of Chemical Information and Computer Sciences. 16:1 (February 1976) 27-30.

Bourne, Charles P. Planning Data for the Conversion of UCUCS-2 Catalog Records into Machine Language Form. (UCUCS-2 Conversion Planning). Berkeley: Institute of Library Research, University of California, January 1976. ILR-7506. ED-118 070

Bourne, Charles P. "Voice from a Past President, Charles P. Bourne, President 1970," (editorial) Bulletin of the American Association for Information Science. 2:5 (December 1975) 40.

Bourne, Charles P. and Dorothy Gregor. "Planning Serials Cancellations and Cooperative Collection Development in the Health Sciences: Methodology and Background Information," Bulletin of the Medical Library Association. 63:4 (October 1975).

Bourne, Charles P. "Initial Article Filing in Computer-Based Book Catalogs: Techniques, Problems, and Article Frequencies," Journal of Library Automation. 8:3 (September 1975) 221-247.

All of the ILR reports had a distribution of about 250 copies. A complete list of major ILR technical reports prepared as of last year was given in an appendix to the last annual report.

X. FIVE-YEAR PLAN

ILR does not yet have a current five-year plan that would reflect or incorporate all of the recent changes and adjustments described in the Introduction to this report. So much change has confronted ILR recently that we are still in the process of formulating a new or modified set of objectives and priorities.

APPENDIX

ILR/CIS TRAINING PROGRAM ACTIVITIES

July 1 1975 - July 1 1976

DATE	PLACE	AUDIENCE	SUBJECT	INSTRUCTOR
July 7	UCB	UC librarians (6-15)	Lockheed initial	Tom Crawford, Lockheed
July 10	UCLA	" "	SDC initial	Harry Boyle, SDC
July 21	UCLA	" "	Lockheed initial	Tom Crawford, Lockheed
July 24	UCLA	" "	Lockheed overflow	Tom Crawford, Lockheed
August 4	UCB	" "	SDC Advanced	Harry Boyle
August 11	UCB	" "	Lockheed overflow	Tom Crawford
August 15	UCB (CIS also co-operated with USC in hosting a similar session for Southern California)	50 UC, CSUC, Stanford & other librarians	BIOSIS Previews data base workshop	Kay Durkin, Special Projects Office; Biological Abstracts assisted by Jo Robinson & Joann Yates, CIS
November 11	UCLA	30 UC, CSUC, & other academic librarians	Psychological Abstracts data base workshop	Marjorie Wilson, Assoc. Ed., Psych Abstracts; assisted by Jo Robinson
November 13	UCB	50 UC, CSUC, Stanford & other librarians	"	"
November 20	UCB	50 UC, CSUC, Stanford & other librarians	CA Condensates data base workshop	Diane Yoder, Senior Assoc. Ed., Chemical Abstracts; assisted by Jo Robinson, Johanna Ross (UC Davis), & Joann Yates (CIS).
November 21	UCLA	25 UC, CSUC, & other librarians	"	Diane Yoder, assisted by Jo Robinson, Joann Yates, Julie Kwan (UCLA/BIOMED) & Vincent Caccesi (UCIrvine)
December 10	UCLA	15 UCLA librarians	SDC initial training with reference to Information Service data base	Jo Robinson

APPENDIX

DATE	PLACE	AUDIENCE	SUBJECT	INSTRUCTOR
January 6	UCLA	12 UCLA librarians	Lockheed searching; refresher course	Jo Robinson
January 19	UCB	12 UC librarians	Lockheed initial	Jo Robinson
January 26-29	UCB, UCD, UCLA, UCSD	UC and other librarians	Science Citation Index and SSCI data base workshop	Richard Sweet (ISI), assisted by CIS and local staff.
February 4	UCB	10 UC librarians	SDC/ORBIT initial	Jo Robinson
February 10	UCLA	15 UC librarians	SDC searching with reference to American Statistics Index and Congressional Information Service	Judy Wanger (SDC)
March 1 March 3	UCLA UCB	UC librarians (50 all together)	COMPENDEX, NTIS data base workshop (same day)	Jerry Byrne, LLL Isom Harrison, LLL
April 1	UCB	25 UC librarians	The Interview for On-Line Searching; a video-tape	Pauline Atherton
April 20-21	UCB	6 UCB librarians	Lockheed initial training	Jo Robinson
April 26-August	UCB	UCB librarians	Supervised use of C. Bourne's Lockheed retrieval exercises	Self-paced; Jo Robinson, supervisor
April 28	UCB	30 UC librarians	Data Base Seminar Meeting #1, ERIC, BIOSIS	Jo Robinson (organizer), Hans Rocke, guest speaker
May 12	UCB	25 UC librarians	Data Base Seminar #2 (BIOSIS)	D. Gregor/A. Howard, I. Radkey/F. Tong
May 18	UCSF	3 UCSF librarians	Lockheed initial training	Jo Robinson
May 25	UCB	25 UC librarians	Data Base Seminar #3 (Psych Abstracts, CDI)	B. Anderson/A. Lipow S. Klugman

APPENDIX

DATE	PLACE	AUDIENCE	SUBJECT	INSTRUCTOR
June 6	Denver	19 U.S. librarians	SLA continuing Ed. seminar: using Chemical Abstracts Condensates	Jo Robinson
June 9	UCB	25 UC librarians	Data Base seminar #4 (ERIC, ECE, Medline)	D. Gregor/S. Kaufman B. Taylor (State Lib.)
June 21	UCB	15 UC librarians	Lockheed advanced training session	Tom Crawford
June 23	UCB	25 UC librarians	Data Base seminar #5 (NTIS)	A.M. Mitchell I. Harrison (LLL)
June 24	UCSB	15 Santa Barbara librarians and faculty	Search Strategy	Jo Robinson
June 28	UCLA	15 UC librarians	Lockheed Advanced Training session	Tom Crawford
June 29	UCB	20 faculty members	UCB "faculty seminar" searching demonstration	Jo Robinson
June 28--August 20	UCB	29 library school students	Computer-Based Reference:LIB 221	Barbara Anderson and Jo Robinson